



SYSTEM AND METHOD FOR EMBEDDED PROCESSOR FIRMWARE DEVELOPMENT

Dan M. White
Appl. No. 10/748,427
Replacement Sheet

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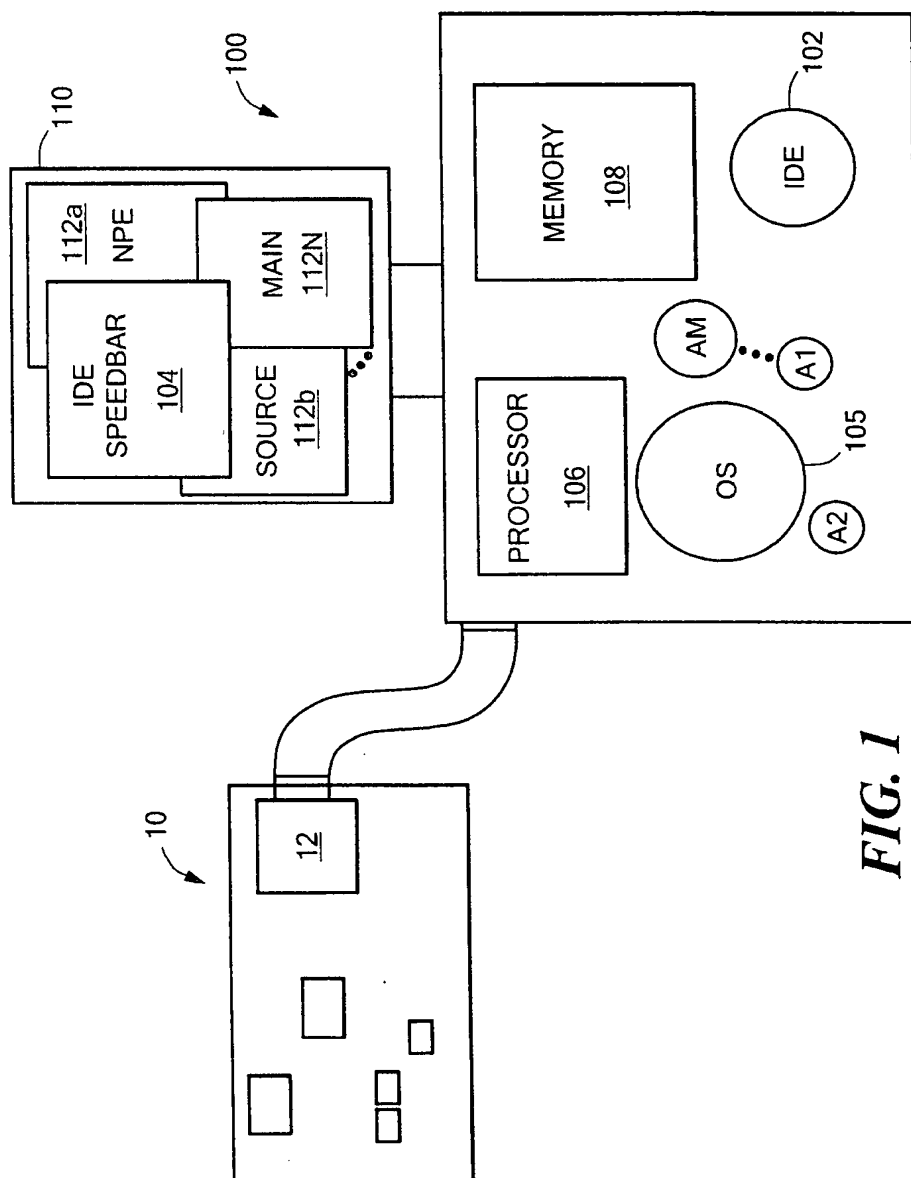


FIG. 1

Symbols for txpcr.o on npe0									
Collapse All		View Source							
- W:/cmodels/npe0_sw_tb/win32/txpcr.s									
data_label Bar 0x0004									
- struct W:/cmodels/npe0_sw_tb/win3									
.pkthdr2 0x4 (0x4)=0xxxxxxx									
.pkthdr1 0x13 (0x10)=0xxxxxxx									
.mp									
- struct W:/cmodels/npe0_sw_tb/w									
.pkthdr3 0x22 (0x20)=0xxxxxxx									
.pkth6									
- struct W:/cmodels/npe0_sw_t									
.pkthdr4 0x39 (0x38)=0xxxxxxx									
.pkth1									
- struct W:/cmodels/npe0_sw_t									
data_label ConfigTable1(word) 0X50 (0X50)									
data_label ConfigTable2(word) 0X68 (0X68)									
data_label ConfigTable4(word) 0X80 (0X80)									
data_label ConfigTable5(word) 0X84 (0X84)									
westport_npe0_sw_tb_vmod.sys									
Project History Units View Help									
+2		+10		+100		+1000		GO STOP	
code segment "text" length=46									
394 SYMBOLS 0 UNRESOLVED									
W:/cmodels/npe0_sw_tb/win32/txpcr.s:121 WARNING code segment does									
real branch:									
nop									
46 INSTRUCTIONS, 36ASIC BLOCKS, 15,333 INSTRUCTIONS PER BASIC									
Loading segment "text" at 0x0000-0x002D									
Loading data segment "data" at 0x0000									
DPSI2 ASSEMBLER ERRORS									
7 PSIM2 ASSEMBLER WARNINGS									
ExecShowStatus c:\pe_tools\tools\bin\windows\psim2a-1c\npe0_tool\									
tools\models\npe0_sw_tb\win32\txpcr.s-o\txpcr									
npe0\ref_instruction_memory 4096 txpcr.o									
npe0\ref_data_memory 8192 txpcr.data									

PSM data for npe0									
File		Item		Dmem		Debug		View Tools	
0x0000		0x1000-240		mov32		d0,#0x4		lin	
0123456789ABCDEF0123456789ABCDEF									
00001010100000000111000011001101									
204									
0123456789ABCDEF0123456789ABCDEF01234567890ABCDEF012									
00000000000000000000000000000000									
Data registers									
Physical registers in npe0									
p0		00000000		p8		00000000		p24 00000000	
p1		00000000		p9		00000000		p25 00000000	
p2		00000000		p10		00000000		p26 00000000	
p3		00000000		p11		00000000		p27 00000000	
p4		00000000		p12		00000000		p28 00000000	
p5		00000000		p13		00000000		p29 00000000	
p6		00000000		p14		00000000		p30 00000000	
p7		00000000		p15		00000000		p31 00000000	
Context stack in npe0									
txpcr.s									
W:/cmodels/npe0_sw_tb/win32/txpcr.s		Step in (x)(F7)		+1(F6)		+2		+10 +100 +1000 Col(F5) Step(F12)	
000 mov32 d0,#0x4		dreg32 xxx = d0		mov32 xxx, #4					
#include "...\include\psm2\cudjoe_									
begin									
ireg myreg=i2									
pointer myreg @ mypacket.pkthdr/2									
dreg32 xxx = d4									
mov32 myreg, #4									
mov32 xxx, #8									
begin									
CodeLabel3									
ireg myreg=i4									
nop									
nop 888 LDUR=1									
mov32 d0, #CodeLabel3									
mov32 myreg, #8									
mov32 d0, #4									
end									
202									

FIG. 2

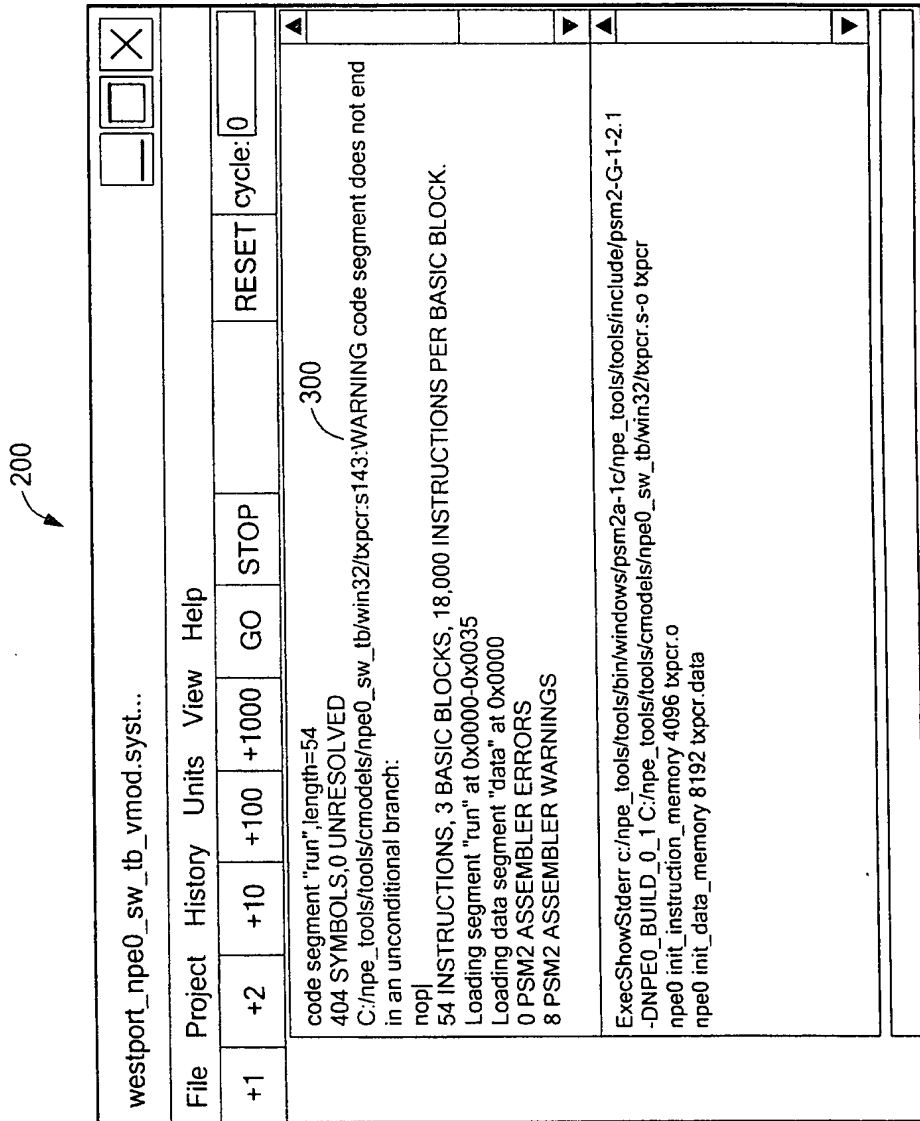


FIG. 3

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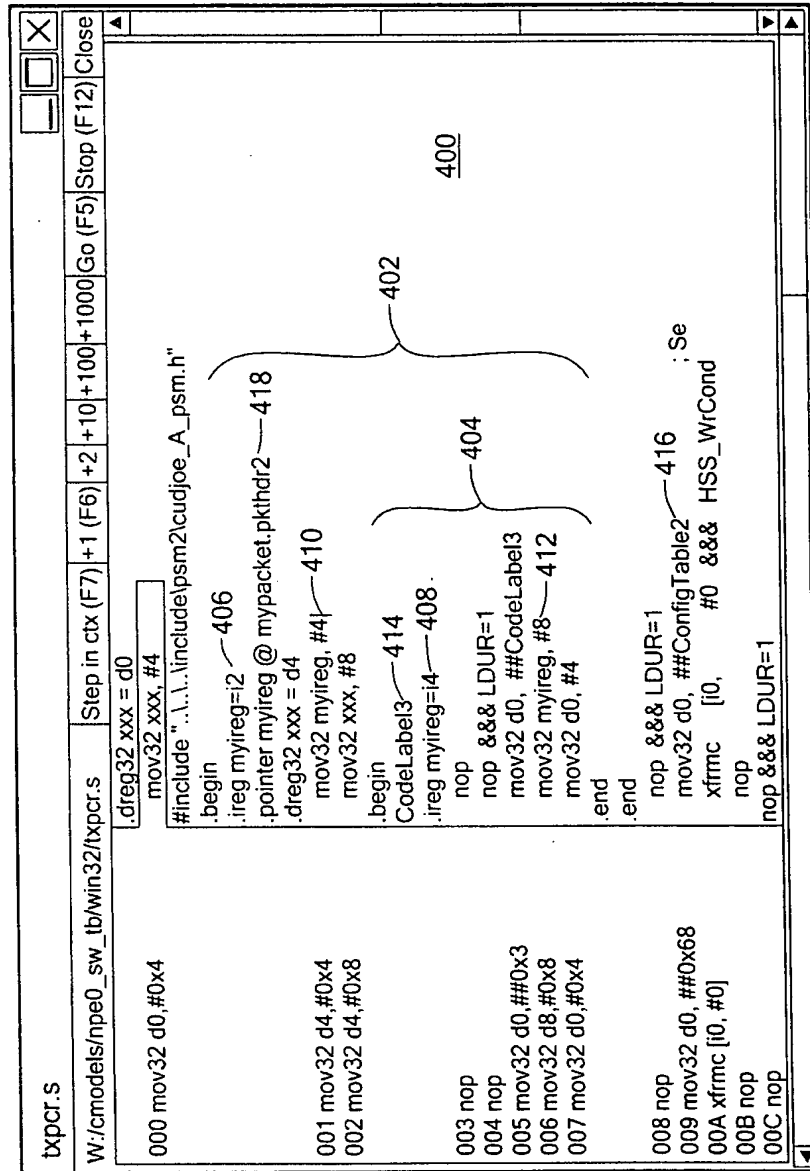


FIG. 4

SYSTEM AND METHOD FOR EMBEDDED PROCESSOR FIRMWARE DEVELOPMENT

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PSM data for psma									
File Irnm Dmem Debug View Tools									
0x000d 0x1000000b					nop				
0123456789ABCDEF0123456789ABCDEF xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx									
0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF 0000000000000000000011111111000000000111111110101110000000000000									
Physical registers in psma					Data registers		Index registers		
p0 00000000	p8 00000000	p16 00000000	p24 00000000	d0 00 00 00 00	i0 0000 0000				
p1 00000000	p9 00000000	p17 00000000	p25 00000000	d4 00 00 00 00	i2 0000 0000				
p2 00000000	p10 00000000	p18 00000000	p26 00000000	d8 00 00 00 00	i4 0000 0000				
p3 00000000	p11 00000000	p19 00000000	p27 00000000	d12 00 00 00 00	i6 0000 0000				
p4 00000000	p12 00000000	p20 00000000	p28 00000000	d16 00 00 00 00					
p5 00000000	p13 00000000	p21 00000000	p29 00000000	d20 00 00 00 00					
p6 00000000	p14 00000000	p22 00000000	p30 00000000						
p7 00000000	p15 00000000	p23 00000000	p31 00000000						
Context stack in psma					Context store in psma				
APCtxt	Stevt	CZLdur	SlxtRepNext	PCJump	PCSTICK	Ctx	Stevt	St PC	Cndx RegMap
00 0	lo, 00 01 0	0 1 000	000	10 1 1		0			00 p0 p2 p4
00 0	off, 00 00 0	0 1 000	000	10 1 1		1	off, 00 000		00 p0 p2 p4
00 0	off, 00 00 0	0 1 000	000	10 1 1		2	off, 00 000		00 p0 p2 p4
00 15	lo, 00 00 0	15 0 000	000	00 1 1		3	off, 00 000		00 p0 p2 p4
PSM control bits: <input checked="" type="checkbox"/> IF <input checked="" type="checkbox"/> IE <input checked="" type="checkbox"/> SCH <input checked="" type="checkbox"/> SO									
500					4 off, 00 000 00 p0 p2 p4				
					5 off, 00 000 00 p0 p2 p4				
					6 off, 00 000 00 p0 p2 p4				
					7 off, 00 000 00 p0 p2 p4				
					8 off, 00 000 00 p0 p2 p4				
					9 off, 00 000 00 p0 p2 p4				
					10 off, 00 000 00 p0 p2 p4				
					11 off, 00 000 00 p0 p2 p4				
					12 off, 00 000 00 p0 p2 p4				
					13 off, 00 000 00 p0 p2 p4				
14 off, 00 000 00 p0 p2 p4									
15 off, 00 000 00 p0 p2 p4									

FIG. 5

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|-|W:/cmodels/npe0_sw_tb/win32/txpcr.s
data_label Bar 0x0004
|-|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 76 4
.pkthdr2 0x4 (0x4)=0XXXXXXXXXX
.pkthdr1 0x13 (0x10)=0XXXXXXXXXX
.mp
|-|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket1 46 4
.pkthdr3 0x22 (0x20)=0XXXXXXXXXX
.pkt6
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
.pkthdr4 0x39 (0x38)=0XXXXXXXXXX
.pkt1
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
data_label ConfigTable1(word) 0X50 (0X50)=0FFFFFFF
data_label ConfigTable2(word) 0X68 (0X68)=0FFFFFFF
data_label ConfigTable91(*) (word) 0X0 (0X0)=0X20
data_reg xxx d0(word) (d0)=00 00 00 00
data_reg region53.xxx d4(word) (d4)=00 00 00 00 — 608
index_reg region53.myireg i2 (i2)=0000 0000 — 604
index_reg region53.region58.myireg i4 (i4)=0000 0000 — 606
code_label Codelabel3=0x0003 — 600
code_label end=0x002a — 602
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p9 4 4
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket1 46 4
.pkthdr3 0X0
.pkt6
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
.pkthdr4 0X17
.pkt1
|+|struct W:/smodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 76 4
    
```

FIG. 6

SYSTEM AND METHOD FOR EMBEDDED PROCESSOR FIRMWARE DEVELOPMENT

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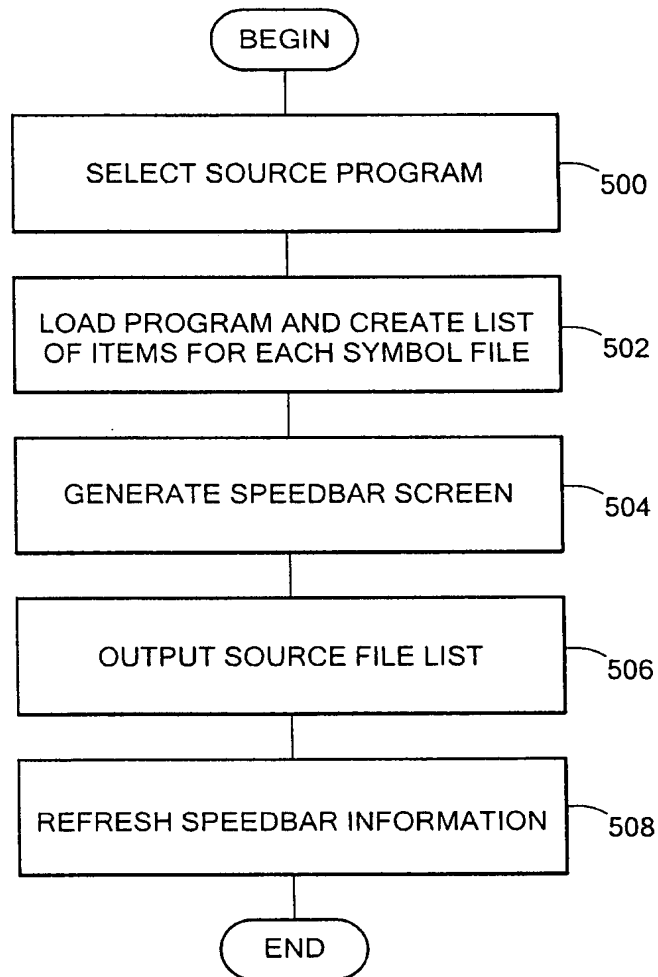


FIG. 7

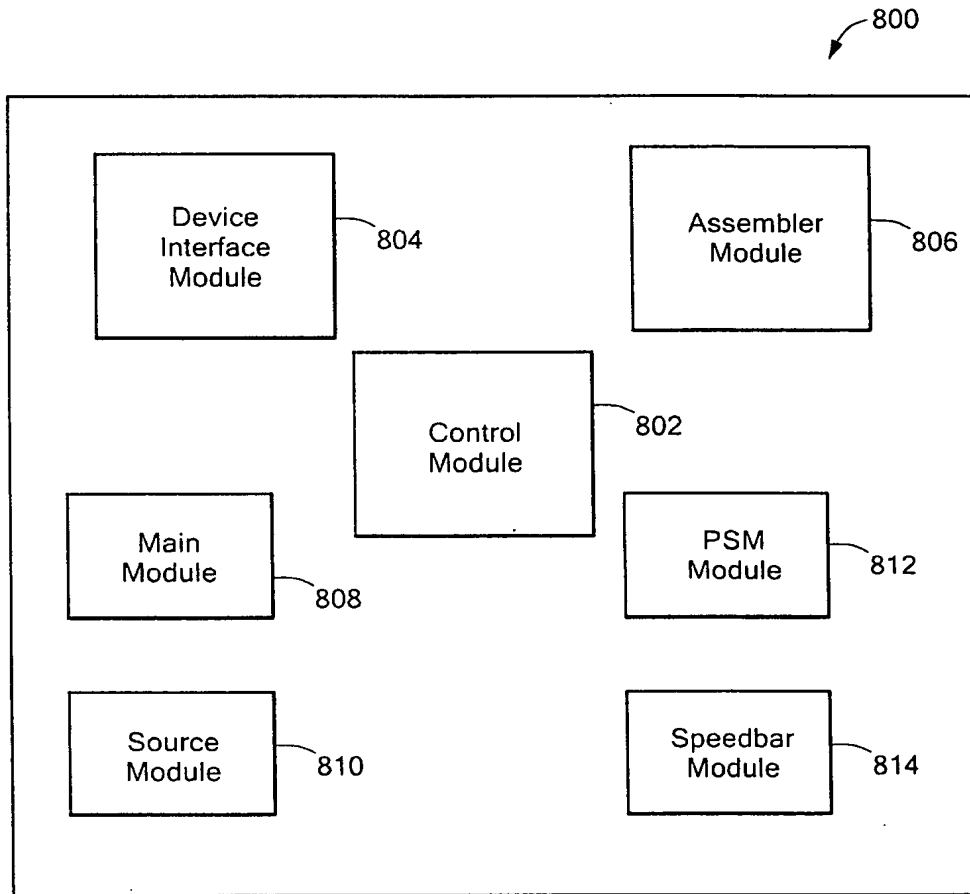


FIG. 8